AHRI Standard 270-2025 (SI/I-P)

Sound Performance Rating of Outdoor Unitary Equipment

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Full document details: AHRI Standard 270-2025 - Sound Performance Rating of Outdoor Unitary Equipment

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IMPORTANT

SAFETY DISCLAIMER

AHRI does not set safety standards and does not certify or guarantee the safety of any products, components or systems designed, tested, rated, installed or operated in accordance with this standard/guideline. It is strongly recommended that products be designed, constructed, assembled, installed and operated in accordance with nationally recognized safety standards and code requirements appropriate for products covered by this standard/guideline.

AHRI uses its best efforts to develop standards/guidelines employing state-of-the-art and accepted industry practices. AHRI does not certify or guarantee that any tests conducted under its standards/guidelines will be non-hazardous or free from risk.

ICS Code: 17.140.01

Note:

This standard supersedes AHRI Standard 270-2015 with Addendum 1.

AHRI CERTIFICATION PROGRAM DISCLAIMER

AHRI Standards are developed independently of AHRI Certification activities and can have scopes that include products that are not part of the AHRI Certification Program. The scope of the applicable AHRI Certification Program can be found on AHRI's website at http://www.ahrinet.org.

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Intent

This standard is intended for the guidance of the industry, including manufacturers, engineers, installers, contractors, and users.

Review and Amendment

This standard is subject to review and amendment as technology advances.

2025 Edition

This edition of AHRI Standard 270 (SI/I-P), *Sound Performance Rating of Outdoor Unitary Equipment*, was prepared by Airside Standards Technical Committee. The standard was approved for publication by the Standards Committee on January 2, 2025.

Origin and Development of AHRI Standard 270

- ARI 270-67, *Standard for Sound Rating of Outdoor Unitary Equipment* was published as a new standard in 1967 to provide the industry and the public a procedure for rating and evaluating the sound levels of outdoor unitary equipment.
- ARI 270-75 was published in 1975
- ARI 270-94 was published in 1994
- ARI 270-95 was published in 1995
- AHRI 270-2009, *Sound Performance Rating of Outdoor Unitary Equipment* superseded ARI 270-95 and was approved as an American National Standard (ANS) on 11 December 2009. Revisions included:
    - Replaced with ratings comprised of *sound power levels* expressed in decibels and a numeric sound quality indicator
    - The frequency range of interest was expanded to include the 63 *Hz octave band*
    - All *sound power levels* determined from *one-third octave band sound pressure level* measurements
    - The scope of the ratings was expanded to optionally include sound levels for “fan(s) only”
    - References AHRI 220 for reverberation room qualification and testing replacing ANSI S12.31 and ANSI S12.32
- Revised in 2015 to references the sound intensity test method defined in AHRI 230, as an alternate method of test to the reverberation room test method defined in AHRI 220 for determination of sound power ratings.
- Addendum 1 was published in March 2016 to remove the last sentence in Section 4.3.2, edit the second paragraph in Section 4.3.3, edit Section 5.1.2, and remove Section 5.5.
- AHRI administratively withdrew ANS for AHRI 270-2009 on 7 August 2020

Summary of Changes

AHRI Standard 270-2025 (SI/I-P) contains the following update(s) to the previous edition:

- Remove references to AHRI 1140
- Incorporate Addendum 1 from AHRI 270-2015 (SI/I-P)

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Committee Personnel

Waterside Work Group

Company/Organization	Participant	Voting Role
Voting Organizations		
Trane Technologies	Derrick Knight, Chair	Primary
	Anthony Dix	Alternate
Aaon, Inc.	Karina Saenz-Acosta	Primary
Carrier Corporation	Lee Tetu	Primary
	Wei Zhou	Alternate
Daikin Applied Americas Inc.	Jeffrey Watt	Primary
GE Appliances, a Haier Company	Richard Phillips	Primary
Johnson Controls, Inc.	Paul Bauch	Primary
	Roger Howard	Alternate
Lind Acoustics LLC	Steve Lind	Primary
Mitsubishi Electric US Inc.	Alvaro Araque	Primary
	Erik Sprague	Alternate
Nortek Air Solutions, LLC	Kim Osborne	Primary
Price Industries Inc.	Edgar Duroni	Primary
Jacob (Cobi) Waxman		AHRI Staff Liaison

Waterside Work Group Scope:

This standard work group is responsible for the revision of AHRI 270.

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Waterside Technical Committee

Company/Organization	Participant	Voting Role
Voting Organizations		
Trane US Inc.	Derrick Knight, Chair	Primary
	Anthony Dix	Alternate
Carrier Corporation	Lee Tetu, Vice-chair	Primary
	Wei Zhou	Alternate
Daikin Applied Americas Inc.	Jeffrey Watt	Primary
Emerson Commercial and Residential Solutions	Miles Strand	Primary
GE Appliances, a Haier Company	Richard Phillips	Primary
Intertek	Jim Kline	Primary
Johnson Controls, Inc.	Roger Howard	Primary
	Paul Bauch	Alternate
	Sonya Thorpe	Alternate
Mitsubishi Electric Cooling & Heating	Erik Sprague	Primary
	Alvaro Araque	Alternate
Multistack, LLC	David Winnes	Primary
Price Industries Inc.	Edgar Duroni	Primary
Swegon North America Inc.	Karl Peterman	Primary
Nonvoting Organizations		
Aaon, Inc	Karina Saenz-Acosta	Nonvoter
Lind Acoustics LLC	Steve Lind	Nonvoter
Nortek Air Solutions, LLC	Kim Osborn	Nonvoter
Jacob Waxman		AHRI Staff Liaison

Waterside Standards Technical Committee Scope:

The Waterside and Refrigeration STC is responsible for development and maintenance of standards and guidelines related to sound and vibration of equipment whose primary function is to move, heat, or cool a liquid.

Out of scope for this STC are standards whose primary purpose is not sound and vibration performance, or that are common to both airside and water/refrigeration.

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